

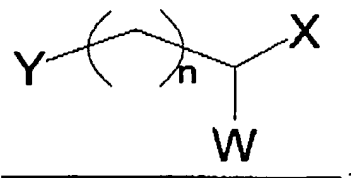
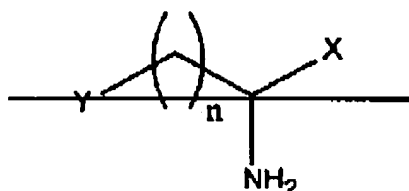
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 Amendment "A" and Response dated May 4, 2006  
 Reply to Office Action mailed February 7, 2006

### AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

#### Listing of Claims:

1. (Currently Amended) A compound comprising:

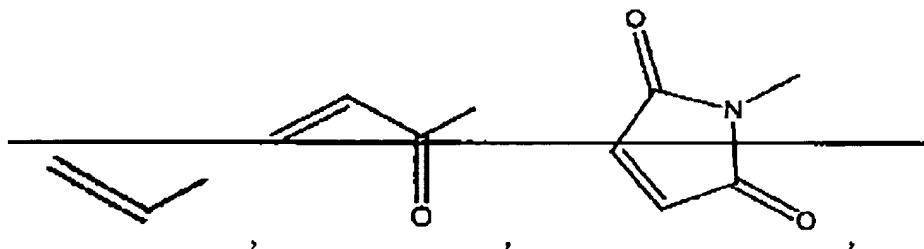


wherein:

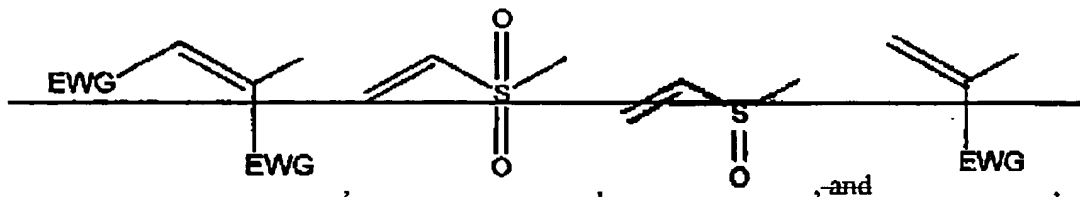
W is hydrogen;

~~X is selected from the group consisting of CH<sub>2</sub>SH, CH<sub>2</sub>OH, NHOH, PO<sub>3</sub>H<sub>2</sub>, pyrazoles, imidazoles, oxazoles, isoxazoles, thiazoles, isothiazoles, triazoles, oxadiazoles and thiadiazoles; and~~

~~Y is selected from the group consisting of: COCZ, C(EWG)Z, SOCZ, SO<sub>2</sub>CZ,~~



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and pharmaceutically acceptable salts thereof, wherein:

EWG is an electron-withdrawing group selected from the group consisting of CHO, COR, COOH, COOR, NO<sub>2</sub>, CN, SOR, SO<sub>2</sub>R, and SO<sub>2</sub>OR;

Z is selected from the group consisting of chlorine, bromine, and iodine;

R is an alkyl or aryl group selected from the group consisting of methyl, ethyl, propyl, i-propyl, butyl, s-butyl, t-butyl, phenyl, substituted phenyl, naphthyl, substituted naphthyl; and

n is an integer 3.

2. (Cancelled)

3. (Original) A pharmaceutical composition for treating microbial infections in a subject, comprising:

a therapeutically effective amount of an agent wherein the agent is selected from the compounds of claim 1, the agent being capable of altering an aspect of Type-I MetAP activity or structure in the subject so as to result in treatment of the bacterial infection; and

a pharmaceutically acceptable carrier.

4. (Original) A pharmaceutical composition for treating bacterial infections in a subject, comprising:

a therapeutically effective amount of an agent wherein the agent is selected from the compounds of claim 1, the agent being capable of altering an aspect of Type-I MetAP activity or structure in the subject so as to result in treatment of the bacterial infection; and

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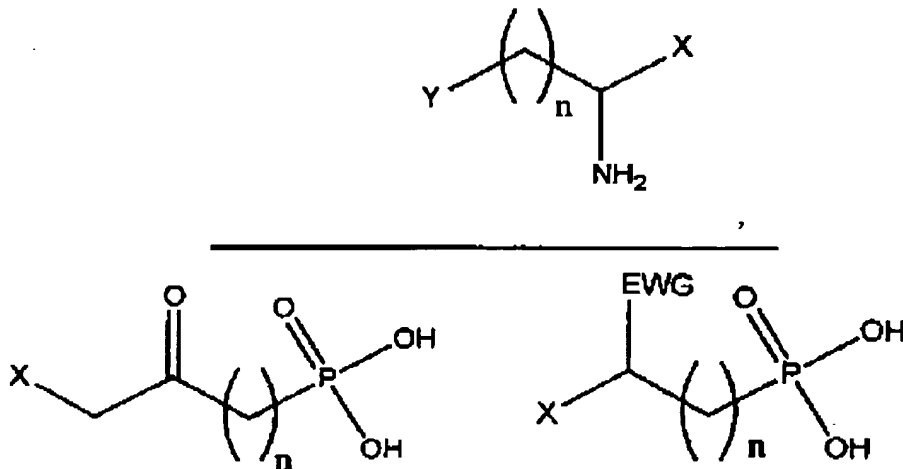
a pharmaceutically acceptable carrier.

5. (Currently Amended) A ~~compound~~ composition as recited in claim 4, wherein the subject is a human.

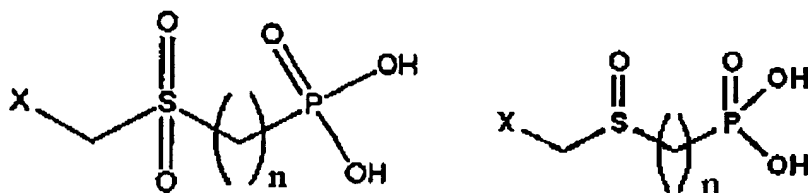
6. (Currently Amended) A ~~compound~~ composition as recited in claim 4, wherein the agent does not completely inhibit the activity of Type-II MetAP in the subject but is bactericidal by inhibiting the activity of Type-I MetAP in the subject.

7. (Withdrawn) A method of providing a dosage of an antibacterial compound to a subject in need thereof, the method comprising administering to the subject an effective amount of a compound as recited in claim 1.

8. (Currently Amended) A compound comprising a formula selected from the group consisting of:



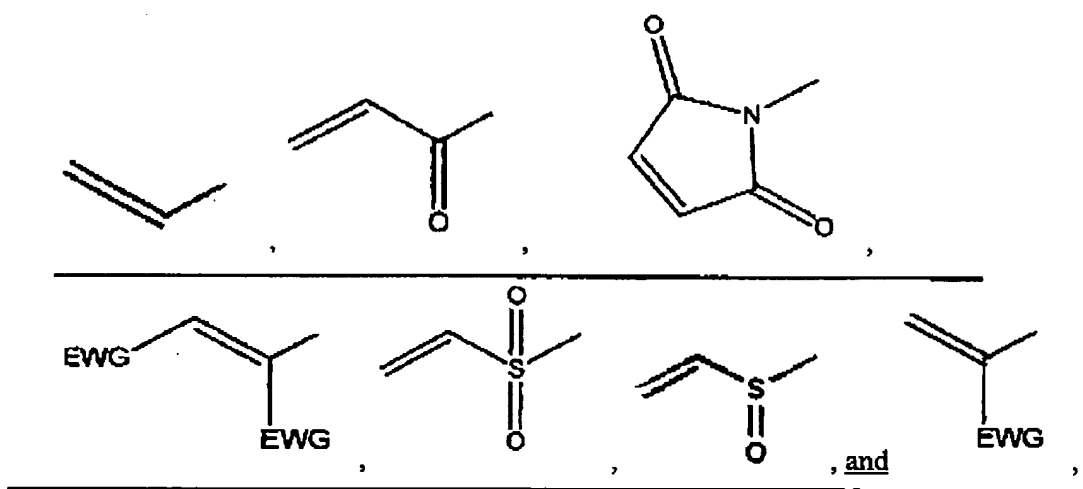
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and pharmaceutically acceptable salts thereof, wherein:

X is chlorine, bromine, or iodine;

Y is selected from the group consisting of: COCZ, C(EWG)Z, SOCZ, SO<sub>2</sub>CZ,



and pharmaceutically acceptable salts thereof, wherein:

EWG is an electron withdrawing group selected from the group consisting of CHO, COR, COOH, COOR, NO<sub>2</sub>, CN, SOR, SO<sub>2</sub>R, and SO<sub>2</sub>OR;

R is an alkyl or aryl group selected from the group consisting of methyl, ethyl, propyl, i-propyl, butyl, s-butyl, t-butyl, phenyl, substituted phenyl, naphthyl, and substituted naphthyl; and

n is an integer of 5 or less.

9. (Original) A compound as recited in claim 8, wherein n is selected from 4 and 5.

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10. (Original) A pharmaceutical composition for treating bacterial infections in a subject, comprising:

a therapeutically effective amount of an agent wherein the agent is selected from the compounds of claim 8, the agent being capable of altering an aspect of Type-I MetAP activity or structure in the subject so as to result in treatment of the bacterial infection; and

a pharmaceutically acceptable carrier.

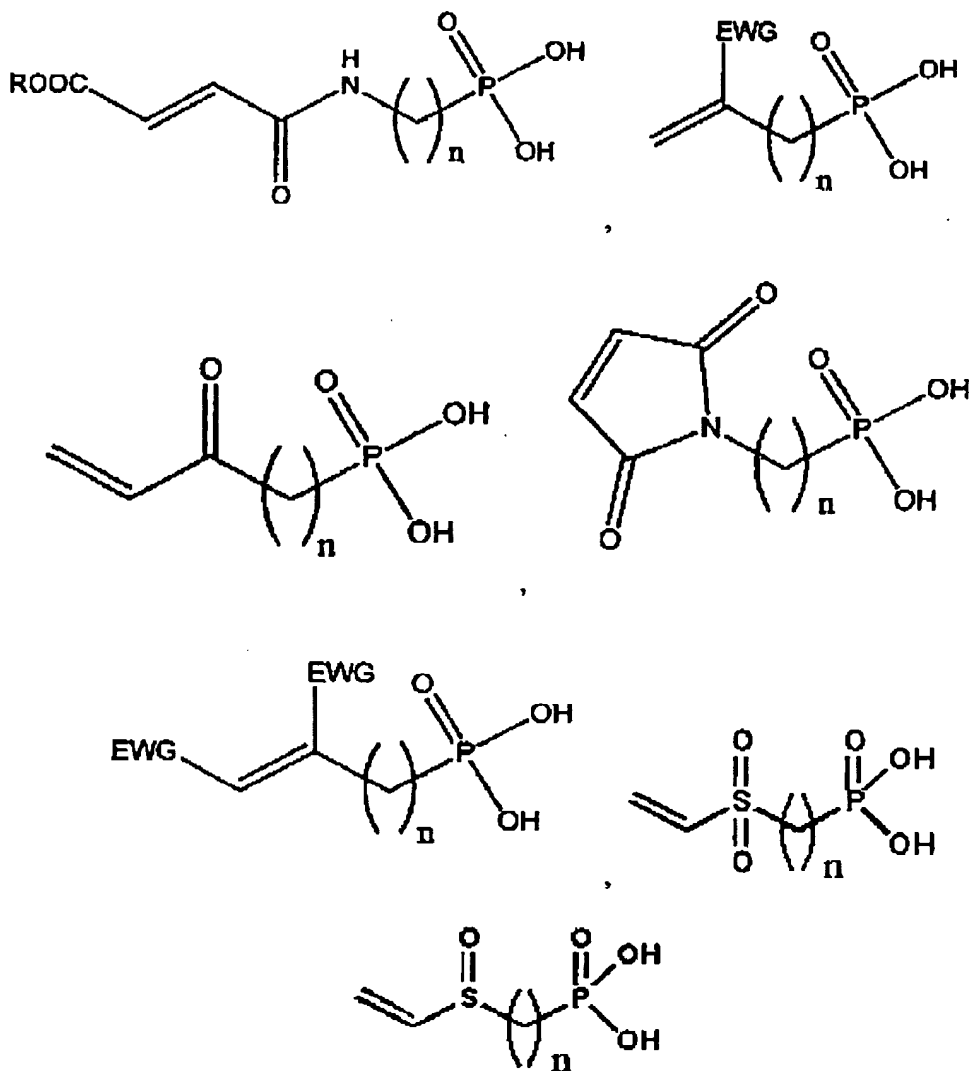
11. (Currently Amended) A ~~compound~~ composition as recited in claim 10, wherein the subject is a human.

12. (Currently Amended) A ~~compound~~ composition as recited in claim 10, wherein the agent does not completely inhibit the activity of Type-II MetAP in the subject but is bactericidal by inhibiting the activity of Type-I MetAP.

13. (Withdrawn) A method of providing a dosage of an antibacterial compound to a subject in need thereof, the method comprising administering to the subject an effective amount of a compound as recited in claim 8.

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14. (Currently Amended) A compound comprising a formula selected from the group consisting of:



and pharmaceutically acceptable salts thereof, wherein:

EWG is an electron withdrawing group selected from the group consisting of CHO, COR, COOH, COOR, NO<sub>2</sub>, CN, SOR, SO<sub>2</sub>R, and SO<sub>2</sub>OR;

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R is an alkyl or aryl group selected from the group consisting of methyl, ethyl, propyl, i-propyl, butyl, s-butyl, t-butyl, phenyl, substituted phenyl, naphthyl, substituted naphthyl; and

n is an integer of 5 or less.

15. (Original) A compound as recited in claim 14, wherein n is selected from 4 and 5.
16. (Original) A pharmaceutical composition for treating bacterial infections in a subject, comprising:
- a therapeutically effective amount of an agent wherein the agent is selected from the compounds of claim 14, the agent being capable of altering an aspect of Type-I MetAP activity or structure in the subject so as to result in treatment of the bacterial infection; and
  - a pharmaceutically acceptable carrier.
17. (Currently Amended) A ~~compound~~ composition as recited in claim 16, wherein the subject is a human.
18. (Currently Amended) A ~~compound~~ composition as recited in claim 16, wherein the agent does not completely inhibit the activity of Type-II MetAP in the subject but is bactericidal by inhibiting the activity of Type-I MetAP.
19. (Withdrawn) A method of providing a dosage of an antibacterial compound to a subject in need thereof, the method comprising administering to the subject an effective amount of a compound as recited in claim 14.
20. (Withdrawn) A method of providing an antibacterial dosage to a subject in need thereof which comprises:
- administering to a subject an effective amount of a compound that is selectively configured to inhibit Type-I MetAP, the compound comprising the formula:

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### A-B-C

wherein:

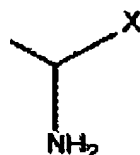
A is a functional group selected to covalently bond with a recognition site on Type-I MetAP;

C is an electrophilic functional group selected to inhibit a catalytic site on Type-I MetAP; and

B is a series of groups selected to separate A and C such that each of A and C effectively bind to the respective recognition and active sites on Type-I MetAP;

and pharmaceutically acceptable salts thereof.

21. (Withdrawn) A method as recited in claim 20, wherein A comprises



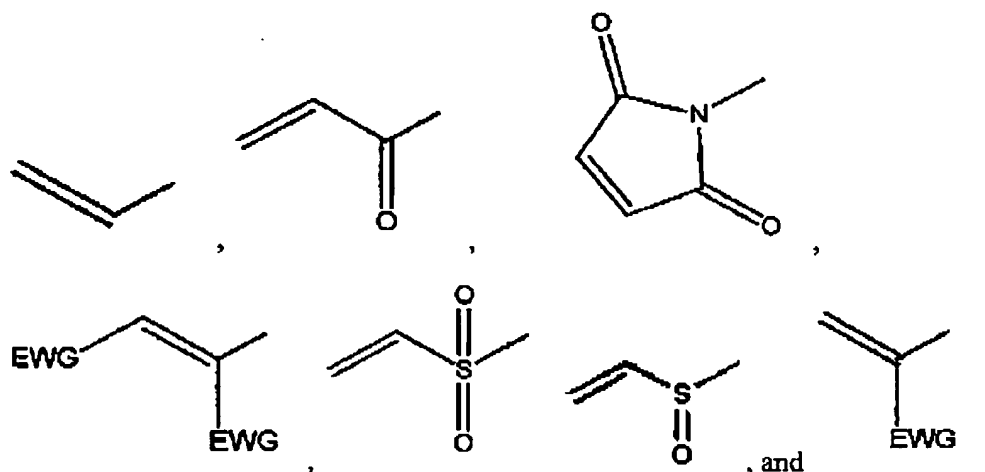
wherein X is selected from the group consisting of CH<sub>2</sub>SH, CH<sub>2</sub>OH, NHOH, PO<sub>3</sub>H<sub>2</sub>, pyrazoles, imidazoles, oxazoles, isoxazoles, thiazoles, isothiazoles, triazoles, oxadiazoles and thiadiazoles.

22. (Withdrawn) A method as recited in claim 20, wherein B comprises a four or five carbon chain.

23. (Withdrawn) A method as recited in claim 20, wherein C is selected from the group consisting of: COCZ, C(EWG)Z, SO<sub>2</sub>CZ,



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wherein:

EWG is an electron withdrawing group selected from the group consisting of CHO, COR, COOH, COOR, NO<sub>2</sub>, CN, SOR, SO<sub>2</sub>R, and SO<sub>2</sub>OR;

Z is selected from the group consisting of chlorine, bromine, and iodine; and

R is an alkyl or aryl group selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, s-butyl, t-butyl, phenyl, substituted phenyl, naphthyl, substituted naphthyl.

24. (Withdrawn) A method as recited in claim 20, wherein the antibacterial dosage further comprises a pharmaceutically acceptable carrier.

25. (Withdrawn) A method as recited in claim 20, wherein the compound does not completely inhibit the activity of Type-II MetAP in the subject but is bactericidal by inhibiting the activity of Type-I MetAP in the subject.